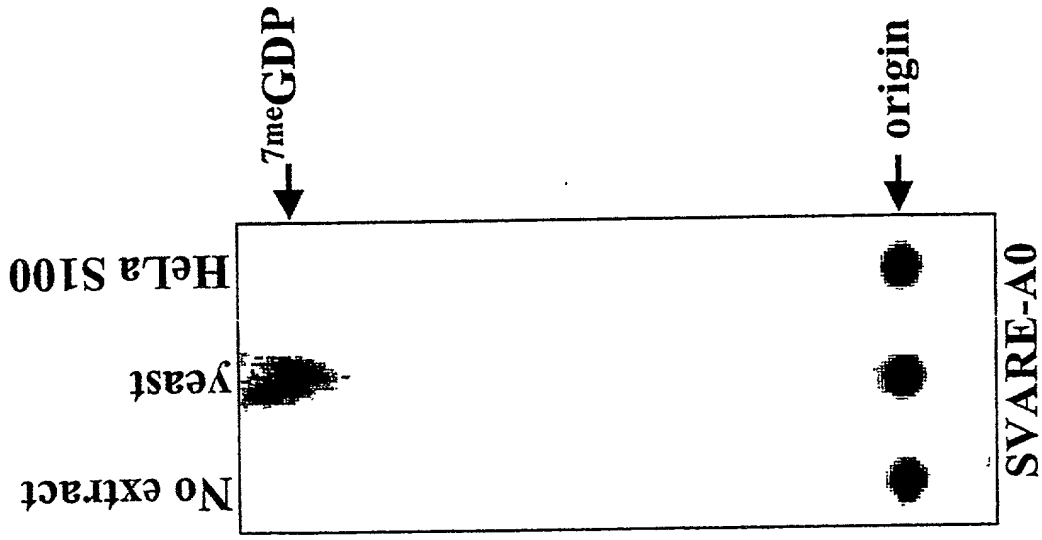


A.



B.

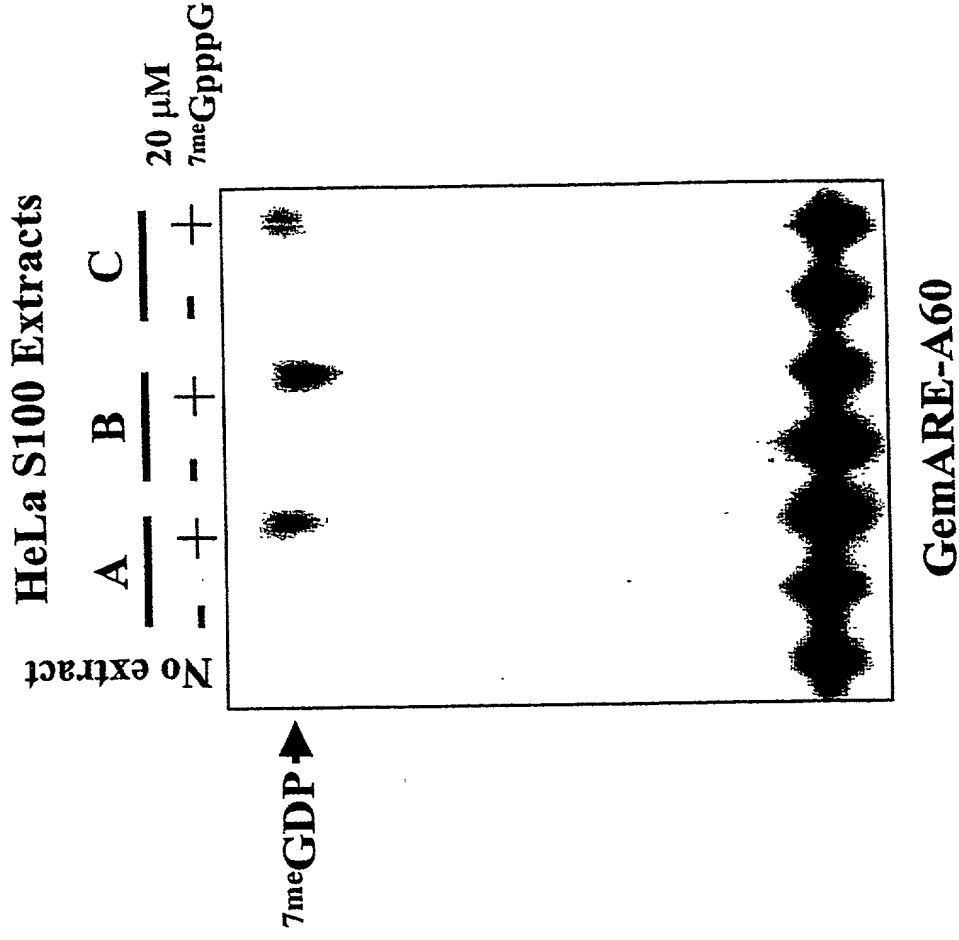


Figure 1.

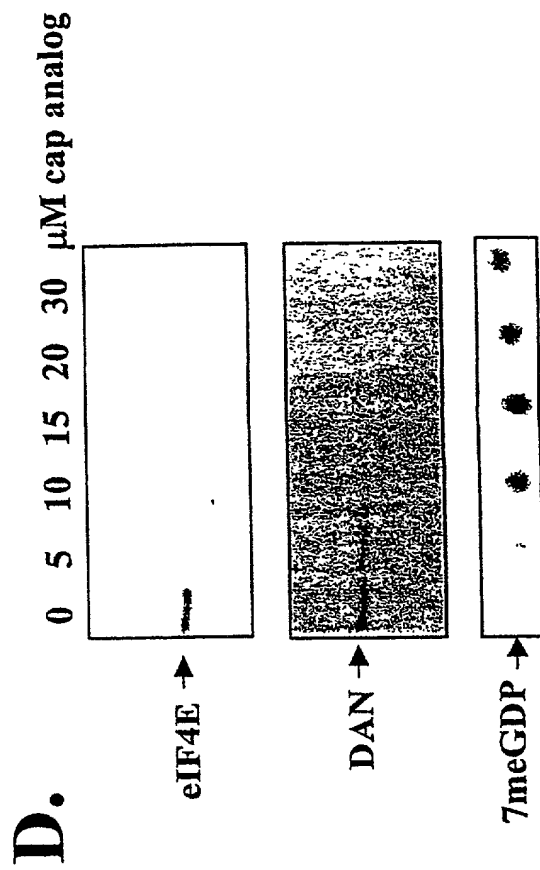
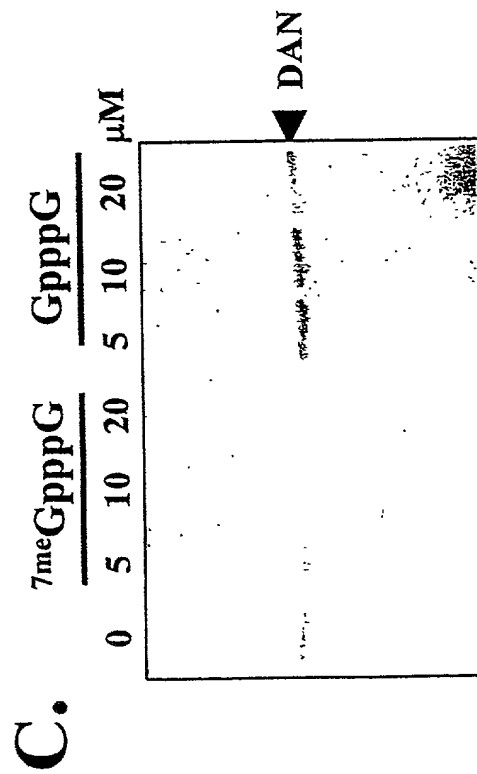
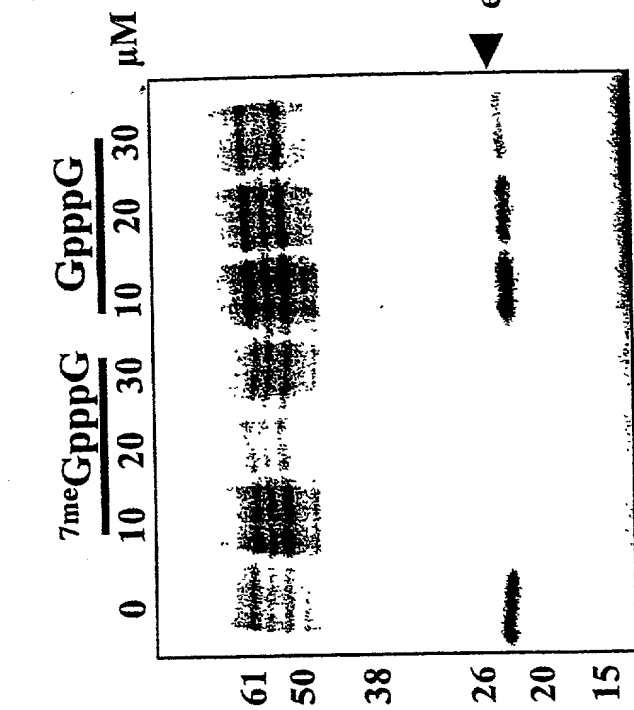
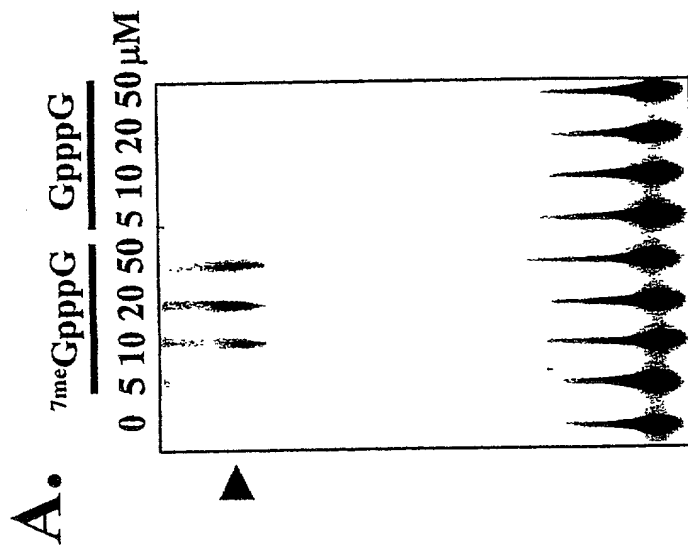
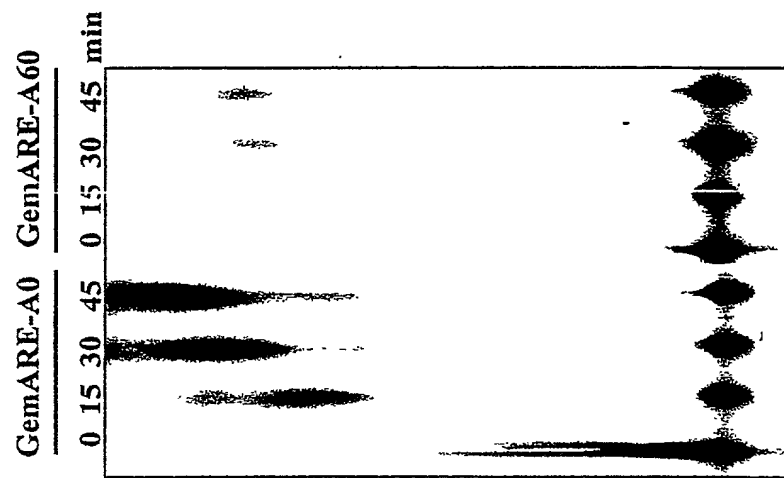
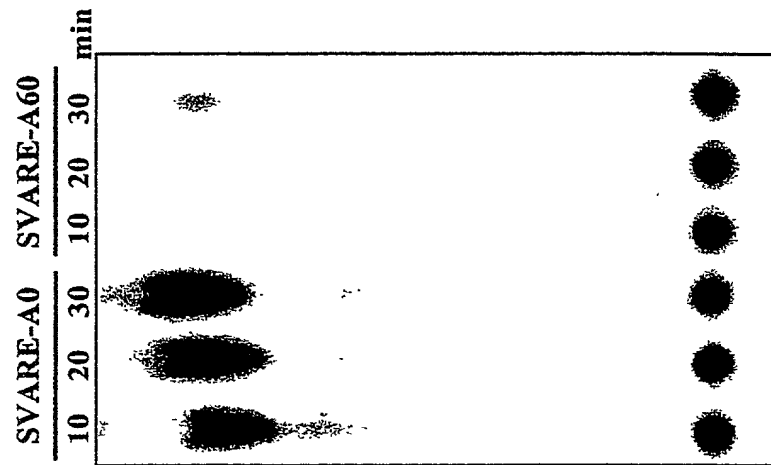


Figure 2.

A.



B.



C.

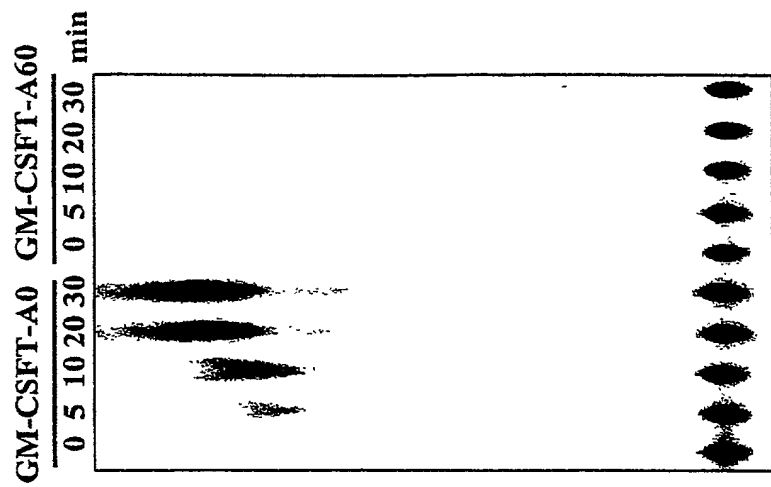
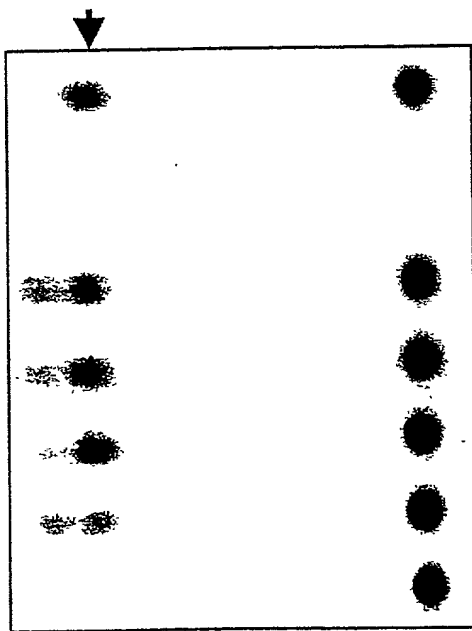


Figure 3.

A.

Poly(A) competitor (ngs)

0 60 120 250 500



8	53	98	88	82	100
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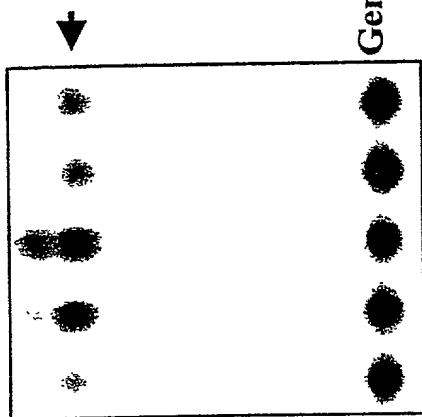
**% decapping relative
to GemARE-A0**

GemARE-A0



poly(A) poly(C)

0 250 500 250 500 ngs



GemARE-A60

٩

0 100 250 500 ngs poly(A)



GemARE-A0

1 1.5x 1.6x 1.6x fold stimulation

Figure 4.

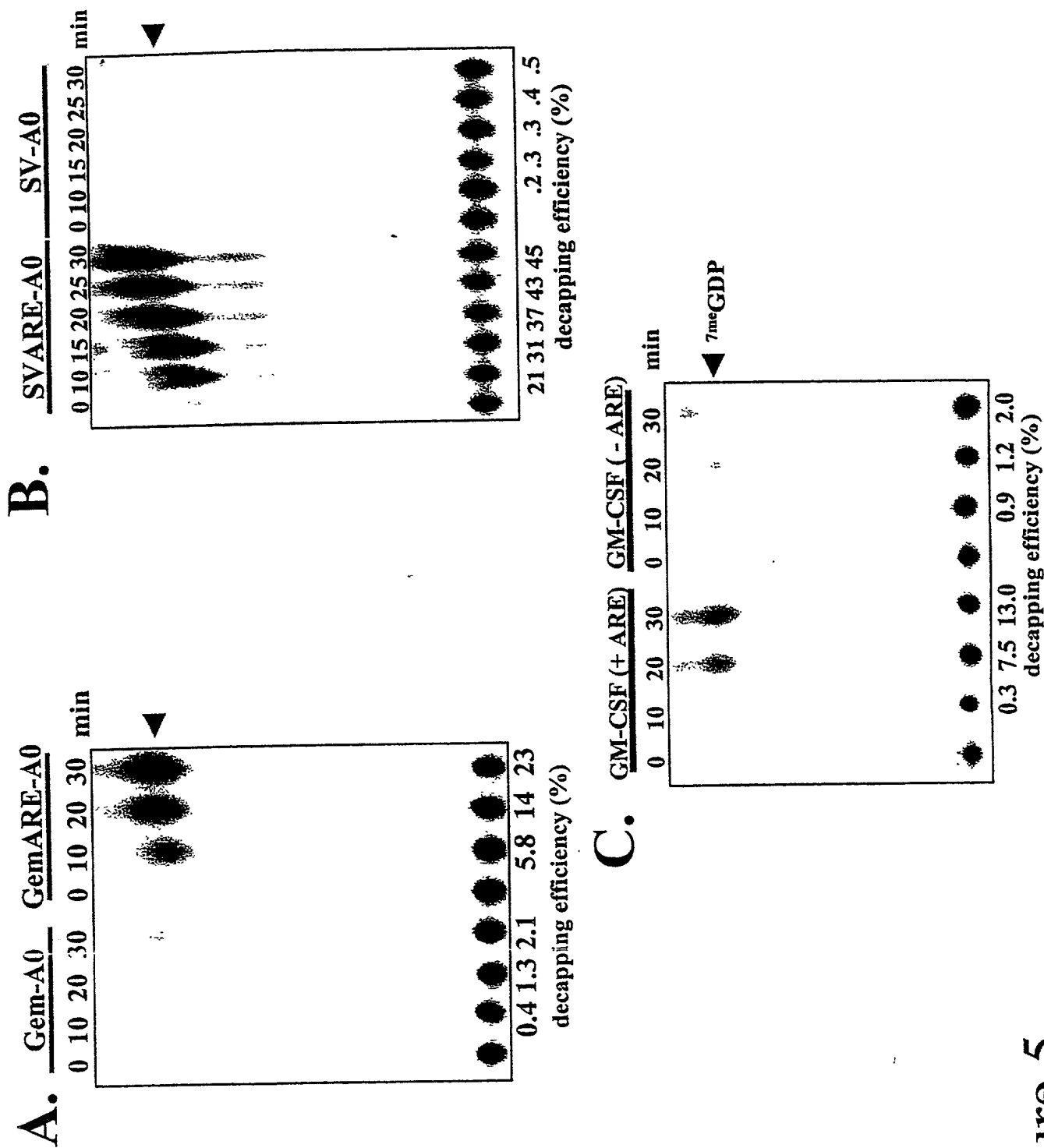


Figure 5.

ARE oligo		Non-specific oligo				p moles competitor	
0	0.125	0.25	0.5	0.125	0.25	0.5	
							← 7meGDP
							GemARE-A0
100%	63%	53%	38%	83%	106%	89%	

Figure 6.

The diagram illustrates the regulation of mRNA deadenylation by ARE binding proteins. It shows two main pathways:

- Left Pathway (Translation or ARE binding proteins):** This pathway shows the assembly of a protein complex on the 3' end of an mRNA. The mRNA has a poly(A) tail (AAAAAAA) and a 3' UTR (AUUA). The complex includes PABP (poly(A) binding protein), 4E (eukaryotic initiation factor 4E), DCP (decapping protein), and PARN (poly(A) nuclear ribonuclease). An arrow labeled "Translation or ARE binding proteins" points from this complex towards the right.
- Right Pathway (Deadenylation):** This pathway shows the deadenylation of the poly(A) tail. An arrow labeled "Deadenylation" points from the poly(A) tail towards the left. The resulting mRNA has a 5' cap (A) and a 5' UTR (CAP, DCP).

The diagram demonstrates that the presence of ARE binding proteins (PABP, 4E, DCP, PARN) can regulate the deadenylation process, potentially leading to the formation of a 5' cap and subsequent translation.

**or accessible for
3'-to-5' exonucleolytic
decay**

Figure 7.

Ammonium Sulfate Fractionation of Decapping Activity in HeLa S100

A

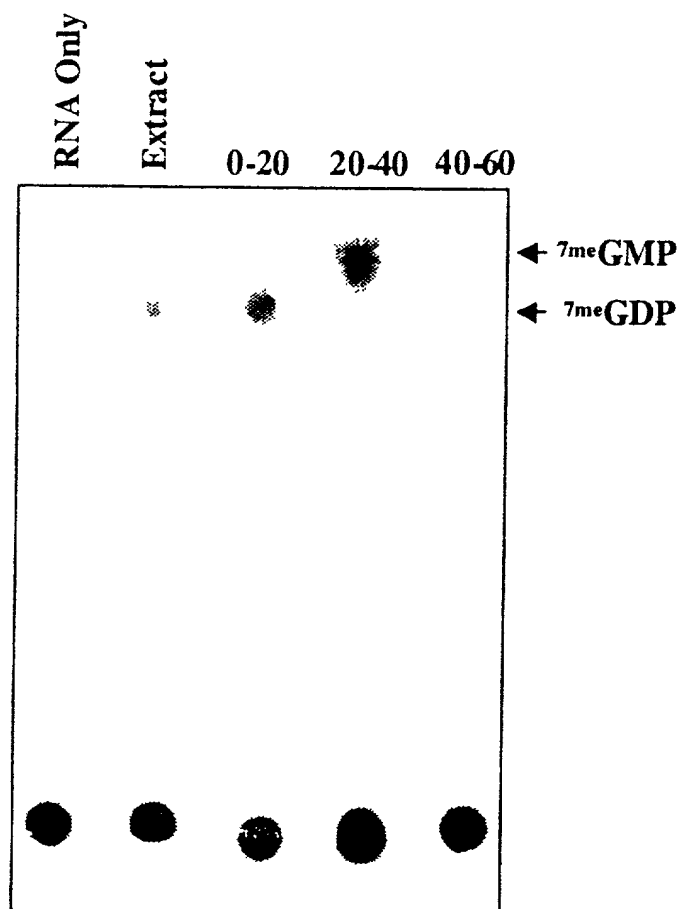
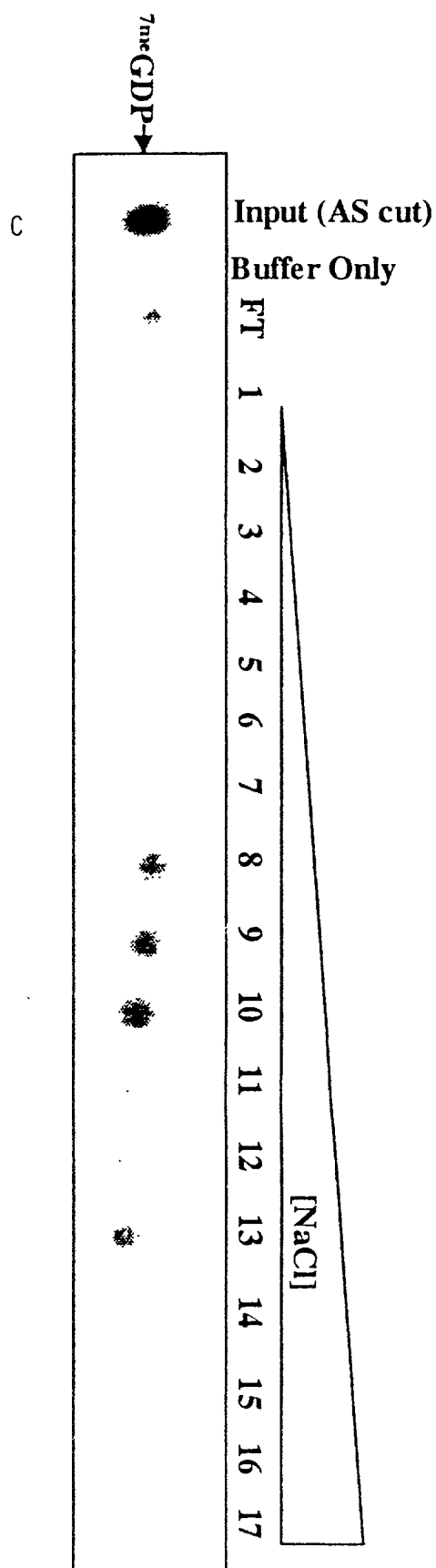


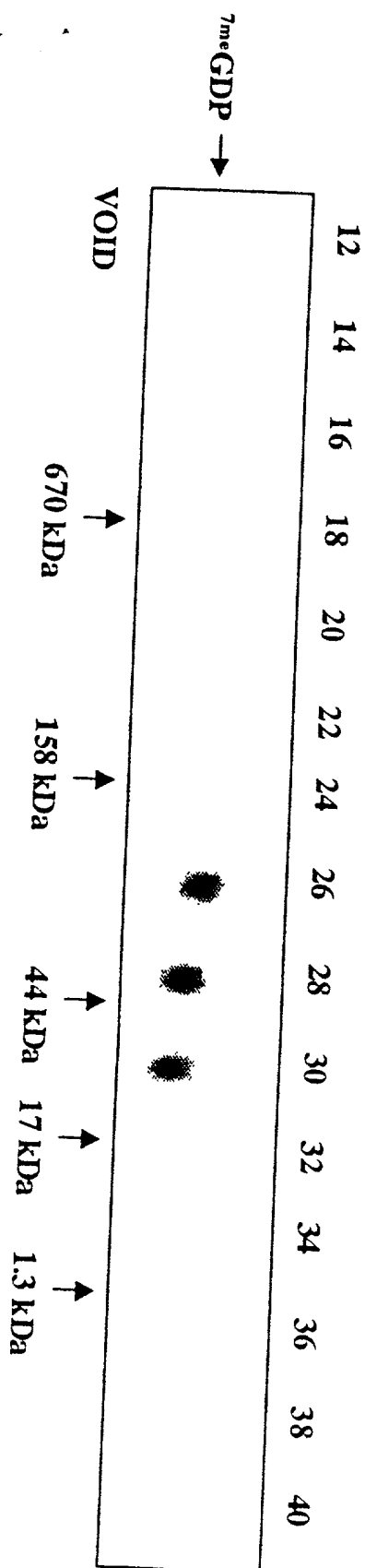
Figure 8, sheet 1

Chromatographic Profile of Decapping Activity on a Heparin-Sepharose Column



C

Chromatographic Profile of Decapping Activity on a Superose-6 Column



B

00066450 004031

The mRNA stabilizing element from the α -globin gene represses decapping in vitro

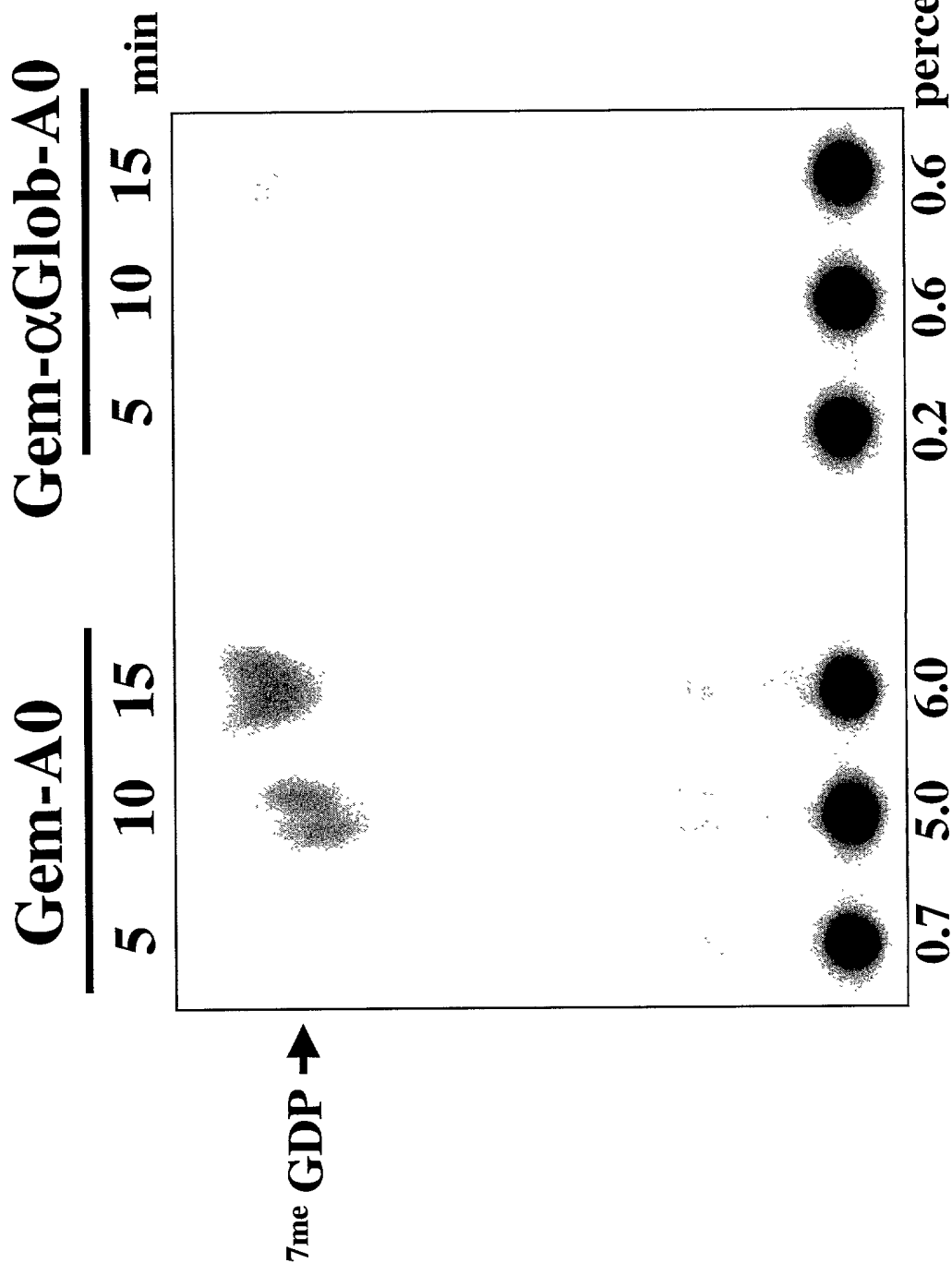


Figure 9